

## ABSTRACT

The invention relates to the image processing, and more particularly to the image processing method, the image processing apparatus, and the image processing system that compress color data. In order to extract the representative color from a small region on the color image in order to approximate to the color image, the invention performs the calculating of an average and a variance of color data of the small region, the color of which the variance is the largest is determined as a target color. According to the average of the target color, the small region is divided into two sections. After calculating the region information of the two sections and each representative color of section, judging whether the obtained number of representative colors is more than the requested number of colors, if the obtained number is more than the required number of colors, the dividing is completed. If not, the dividing is repeated again.